WE CLAIM:

1. A composite material, comprising:

a fiber media, wherein said fiber media comprises at least one fiber having at least one surface projection, whereby at least one intra-fiber void is formed; and

at least one microcell in contact with said fiber media, wherein said microcell is capable of engaging said intra-fiber void.

2. A composite material as claimed in claim 1, wherein said fiber media is formed from a polymer.

3. A composite material as claimed in claim 2, wherein said polymer is selected from the group consisting of a nylon, a polyester, a polyolefin and a combination thereof.

4. A composite material as claimed in claim 2, wherein said polymer is selected from the group consisting of polyester, polypropylene, and nylon 6 with FAV (Formic Acid Viscosity) of at least about 65.

5. A composite material as claimed in claim 1, wherein said fiber media is formed from a mineral.

6. A composite material as claimed in claim 5, wherein said mineral is glass.

7. A composite material as claimed in claim 1, wherein said microcell is an expandable microsphere, whereby said expandable microsphere has an unexpanded form and an expanded form.

8. A composite material as claimed in claim 7, wherein said unexpanded form is capable of passing into and out of said intra-fiber void and wherein said expanded form is inhibited from passing into and out of said intra-fiber void.

9. A composite material as claimed in claim 1, wherein said surface projection is a continuously longitudinal lobe.

10. A composite material as claimed in claim 1, wherein said fiber has at least two surface projections, and said surface projections are continuously longitudinal lobes.

11. A composite material, comprising:

a fiber media, wherein said fiber media is formed from a polymer and said fiber media comprises at least one fiber having a shape factor of at least about 1.5 and having at least one surface projection, whereby at least one intra-fiber void is formed; and

at least one expanded microcell in contact with said fiber media, wherein said expanded microcell is capable of engaging said intra-fiber void.

12. A composite material as claimed in claim 11, wherein said shape factor is between about 1.5 and about 6.

13. A composite material as claimed in claim 11, wherein said shape factor is between about 2 and about 4.

14. A composite material as claimed in claim 11, wherein said polymer is selected from the group consisting of a nylon, a polyester, a polyolefin and a combination thereof.

15. A composite material as claimed in claim 11, wherein said polymer is selected from the group consisting of polyester, polypropylene, and nylon 6 with FAV (Formic Acid Viscosity) of at least about 65.

16. A composite material as claimed in claim 11, wherein said surface projection is a continuously longitudinal lobe.

17. A composite material, comprising:

a fiber media, wherein said fiber media is formed from a polymer selected from the group consisting of polyester, polypropylene, and nylon 6 with FAV (Formic Acid Viscosity) of at least about 65, said fiber media comprises at least one fiber having a shape factor of between about 1.5 and about 6 and having at least two continuously longitudinal lobes, whereby at least one intra-fiber void is formed; and

at least one expanded microsphere in contact with said fiber media, wherein said expanded microsphere is capable of engaging said intra-fiber void.

18. A method for producing a composite material, comprising the steps of:

providing a fiber media, said fiber media comprises at least one fiber having at least one surface projection, whereby at least one intra-fiber void is formed; and

incorporating at least one microcell into said fiber media, wherein said microcell is capable of engaging said intra-fiber void.

19. A method for producing a composite material as claimed in claim 18, wherein said microcell is an expandable microcell, and further comprising the step of applying a triggering energy capable of expanding said expandable microcell.

20. A method for producing a composite material as claimed in claim 18, wherein said fiber media is formed from a polymer.

21. A method for producing a composite material as claimed in claim 20, wherein said polymer is selected from the group consisting of a nylon, a polyester, a polyolefin and a combination thereof.

22. A method for producing a composite material as claimed in claim 20, wherein said polymer is selected from the group consisting of polyester, polypropylene, and nylon 6 with FAV (Formic Acid Viscosity) of at least about 65.

23. A method for producing a composite material as claimed in claim 18, wherein said fiber media is formed from a mineral.

24. A method for producing a composite material as claimed in claim 23, wherein said mineral is glass.

25. A method for producing a composite material, comprising the steps of:

providing a fiber media, wherein said fiber media is formed from a polymer selected from the group consisting of polyester, polypropylene, and nylon 6 with FAV (Formic Acid Viscosity) of at least about 65, said fiber media comprises at least one fiber having a shape factor of between about 2 and about 4, and having at least two continuously longitudinal lobes, whereby at least one intra-fiber void is formed;

incorporating at least one expandable microcell into said fiber media, wherein said expandable microcell is capable of engaging said intra-fiber void; and

applying a triggering energy to said expandable microcell, wherein said triggering energy is capable of expanding said expandable microcell.